

**STATEMENT OF L. ROBERT SHELTON**  
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**BEFORE THE TRANSPORTATION SUBCOMMITTEE**  
**OF THE**  
**COMMITTEE ON APPROPRIATIONS**  
**UNITED STATES HOUSE OF REPRESENTATIVES**  
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Mr. Chairman, I appreciate the opportunity to testify before you and the members of this subcommittee. I want to congratulate you for assuming leadership, and thank the subcommittee for the endless support you have provided to help us succeed with our mission to save lives and reduce injuries on the nation's highways. We look forward to working with you and your staff.

**BUDGET HIGHLIGHTS**

**INVESTMENTS IN SAFETY**

Transportation safety is Secretary Mineta's highest priority. The Department's budget for fiscal year 2002 proposes an investment of \$7.3 billion in direct safety funding, an increase of 7.5% over 2001. This is a reflection of Secretary Mineta's commitment to improve transportation safety. NHTSA is requesting an investment of \$419 million, a modest increase of 4% from FY 2001 funding, to address the highway safety challenges which I will outline further.

**HIGHWAY SAFETY ACHIEVEMENTS**

I am pleased to report that there is marked progress from the 1994 national seat belt use rate of 54 percent to the 71 percent belt use rate in 2000 -- the highest in our nation's history. Furthermore, the National Occupant Protection Use Survey for 2000 indicates that 10 states had belt use rates over 80 percent, including California, the most populous state, with nearly a 90 percent seat belt use rate for the year. NHTSA is steadily making progress toward reaching the goal of a 90 percent seat belt usage rate by 2005.

In addition, we are making significant strides in other areas of highway safety. The child passenger restraint use rate has also risen dramatically over the past few years as child passenger fatalities continue to decline. In fact, the goal of reducing child occupant fatalities by 15 percent by 2000 was met one year early in 1999. This year, working with state and local partners, NHTSA launched a new Internet-based child safety seat fitting station locator service. Using this online service, consumers may obtain local contact information for a child safety seat fitting station or certified child passenger safety technician in their area to ensure their safety seats are installed and used correctly. As of March 1, the web site locator had 2,382 child safety seat inspection sites listed, and there were a total of 15,187 certified technicians and 875 certified instructors. Both technician training and promotion of child safety seat inspection stations are supported with state highway safety grant funds.

Finally, the number of Safe Communities continues to rise. As of the end of December 2000, NHTSA had surpassed its FY 2000 goal of increasing the number of Safe Communities to 1,000.

## THE TREAD ACT

In November 2000, Congress enacted the Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act in the wake of the Firestone tire investigation. This new law requires issuance of several rulemaking actions to update the tire safety standard; develop dynamic rollover tests; and improve the safety of child restraints. It provides stronger penalties, longer safety recall periods and enhanced enforcement. TREAD also provides authority to learn more about safety problems in foreign countries, before they occur in the U.S. Fiscal year 2002 actions to address the safety defects issues in TREAD include data system improvements, enhanced defects screening and investigations, crash site inspections, testing of vehicles and equipment, surveys of vehicle owners, and recall management improvements. These activities are funded in the research and analysis, safety performance standards, safety assurance, and highway safety programs. NHTSA is allocating \$13.496 million of the FY 2002 budget to implement provisions of the TREAD Act.

In keeping with the Child Restraint Safety Plan developed last year, the agency's efforts to improve the performance of child restraints include child safety seat tests with different size dummies in different crash modes, assessment of the benefits of booster seats for older children, and updating the test seat assembly for the child restraint standard (FMVSS No. 213). The agency will conduct testing, develop countermeasures, and assess a test procedure that is being developed by the International Standards Organization, with the goal of adopting a procedure for testing child seats in side impact crashes. The FY 2002 request supports frontal and side crash tests under the New Car Assessment Program with child seats and 3-year-old dummies in the rear seat to assess the best approach for a child restraint ratings program. Furthermore, in support of this

requirement, NHTSA will conduct focus group testing to ensure that child restraint ratings are readily understandable to consumers. The agency will expand and improve the child safety seat ease-of-use database allowing consumers to view specific features and proper installation instructions for current models of child restraint systems.

## AIR BAG SAFETY

Air bags are a highly effective mechanism in reducing fatalities from frontal crashes. Between 1986 and 2000, air bags saved an estimated 5,303 front seat occupants - 4,496 drivers (85 percent) and 807 right front passengers (15 percent). The number of lives saved annually by air bags is continuing to increase as the percentage of air bag-equipped vehicles on the road increases. NHTSA estimates that air bags will save more than 3,200 lives annually in passenger cars and light trucks when all light vehicles on the road are equipped with driver and passenger air bags. The Transportation Equity Act for the 21st Century (TEA-21) requires that future air bags be designed to create less risk of serious air bag-induced injuries than the air bags used in the previous century. NHTSA issued a rule on May 12, 2000, undertaking a broad program of air bag countermeasures requiring the installation of advanced air bags in all new cars and Light Truck Vehicles (LTV's), starting with model year 2004. Today, industry is responding to the Final Rule by fostering new innovative technologies to eliminate aggressive air bag deployments and to reduce fatalities and injuries to out-of-position children and occupants.

FY 2002 agency actions on air bag safety include research on advanced restraint systems, such as adaptive air bags and inflatable belt systems, that have the potential for reducing occupant deaths and injuries in crashes. The performance of these systems could be greatly improved if deployed according to occupant sizes, crash severities and directions, status of safety belt use, and seating positions. Research will also be conducted in the sensing technologies that could be used to determine crash severities, directions, and other collision characteristics. This information will be used to tailor the inflation level required to fill the bag, as dictated at various periods during the crash, to more precisely meet the need to cushion the occupant. Other activities of the Air Bag program include expanding public information and education to promote awareness of existing air bag issues and emerging air bag technologies and educating used car buyers on air bag safety issues.

## STATE PARTICIPATION

Through our performance-based grant program, NHTSA has assisted all states in identifying their unique highway safety issues, developing strategies, and implementing effective programs. NHTSA's state grant programs support key Departmental initiatives, including goals for increasing seat belt use nationwide and reducing alcohol-involved

fatalities. Each state has a critical role to play in the broad-based regional and national strategic plans developed to meet the national goals. The requested \$223 million in state grant funds is critical to meet the Departmental highway safety goals. Given that traffic crashes cost our nation over \$150 billion annually, our budget request is a small investment well worth the cost.

## CHALLENGES

Based on preliminary estimates of the Fatality Analysis Reporting System (FARS), there were 41,800 people killed and 3,200,000 injured in 2000. Highway fatalities account for 94 percent, and highway injuries make up 99 percent of all transportation-related injuries. A major public health problem, these deaths and injuries occur at all ages and are particularly significant for ages 6 through 33, where they are the leading cause of death. Motor vehicle deaths are nearly half the total of all traumatic injury deaths. The large number of motor vehicle injuries places a considerable burden on the nation's health care system. About 20 percent of all Emergency Medical Service (EMS) calls are motor vehicle related, and people treated in trauma centers are there largely as the result of a motor vehicle crash. This medical treatment results in a significant economic burden on society, estimated at more than \$17 billion a year. Since motor vehicle injuries often have long term effects, they are a leading cause of long term disability. Motor vehicle crash injuries have been the neglected epidemic of our society, but they need not be so. We believe that the day will come in this nation when these levels of carnage will be a part of history.

The goals of the *Buckle Up America* Campaign -- to increase the national seat belt use rate to 90 percent and to reduce the number of child occupant fatalities (0-4 years of age) by 25 percent (using fatalities in 1996 as a baseline) by 2005 -- are major challenges facing NHTSA. The campaign has seen much success since its inception in April 1997. However, the goal of increasing the seat belt use rate to 85 percent by 2000 was not met. Lack of primary seat belt laws in the majority of the states and the difficulty in changing behaviors of certain populations have hindered our efforts. If the national seat belt use rate increased from its current 71 percent to 90 percent, an estimated 5,500 fatalities and 132,000 injuries would be prevented each year, producing an economic savings of about \$8.8 billion annually.

Drug and alcohol use among youth continues at unacceptable levels. From the *2000 Monitoring the Future Survey* (National Institute on Drug Abuse), 12th graders' illicit drug use increased by over 70 percent since 1992. Over 50 percent of high school seniors admitted to using an illicit drug in their lifetime, and 6 percent admitted to daily marijuana use. In addition, self-reported monthly use of alcohol increased for high school seniors from 48.6 percent in 1993 to 50.0 percent in 2000. During that same period, binge drinking increased from 27.5 percent to 30 percent. In 1999, there were 12.7 million licensed drivers under age 21. NHTSA will continue to support the recommendations

identified in the Initiative on Drugs, Driving and Youth that addressed strengthening state laws, intensifying state and local enforcement programs, implementing youth-focused education efforts, and providing grants to states to initiate programs and laws focusing on impaired youth driving.

## PROGRAM BUDGET DETAILS

### SAFETY PERFORMANCE STANDARDS PROGRAMS

Funding of \$7.341 million is requested to support the Safety Performance Standards programs which include Safety Standards Support, the New Car Assessment Program (NCAP), Fuel Economy and Theft programs.

#### Safety Standards Support

The budget request of \$2 million will support testing and analytical work for the head restraint standard, including assessment of a new rear impact dummy; development of a supplemental frontal offset crash test requirement; fuel system integrity in crashes; and occupant protection in school buses. In compliance with TREAD requirements, the program includes testing to develop changes to the test seat assembly for the child restraint standard to make it more representative of seats in current vehicle models and evaluation of the side impact protection of child restraints. Cost weight and lead time studies to upgrade the tire standard and to assess child protection in school bus crashes will be conducted. Safety Standards Support also provides funds for crash avoidance work to reduce the occurrence of crashes. TREAD support under crash avoidance includes testing to upgrade the tire standards; investigation of the effect of tire aging on safety problems; and promotion of information on the importance of maintaining proper tire pressure.

The FY 2002 program will also include improvements and global harmonization in light vehicle, heavy truck, and motorcycle braking standards; support for the development of headlighting performance data for consumer information; collection of non-crash data to investigate issues such as trunk entrapment solutions, power windows, carbon monoxide, and vehicle rollaways; and support for an Adapted Vehicle data collection effort on the size and safety of the modified vehicle fleet to enhance safety for the disabled population.

## NCAP

Funding of \$5.231 million for NCAP will support the development and delivery of vehicle safety information to consumers for their vehicle buying decisions, provide market incentives to the automotive industry to improve the safety of vehicles, and provide information to meet the requirements of the TREAD Act. Frontal and side impact testing on approximately one hundred vehicles will cover about 75 percent of new vehicles for the most common crash modes. Rollover resistance ratings will be developed on approximately one hundred vehicles. To support the agency's Child Restraint Safety Plan and the TREAD Act requirements, NCAP will conduct five frontal tests with child seats and the 3-year-old dummy in the rear seat and five NCAP side tests with child seats in the rear seat, using a 3-year-old Hybrid III dummy specially designed for the lateral direction. Results of these tests will be used in the assessment of the best approach for a Child Restraint Safety Ratings program, a requirement under the TREAD Act.

NCAP also supports Consumer Information Program activities. Funds will be used to conduct activities including research to determine the type of information most helpful to consumers and the best ways to present it; develop information for new campaigns and materials on high interest issues, such as rollover, tire safety, child safety, and other emerging issues; expand the methods for disseminating the information to reach more people; and develop diversity initiatives and materials to better reach underserved populations.

## Fuel Economy Program

Funding of \$60 thousand is requested to maintain and continue to integrate the "plants and lines" database with existing in-house databases used to report Corporate Average Fuel Economy (CAFE) program results. The integrated database will provide pertinent details of automobile manufacturing plants, such as products, capacities, employment levels, financial data, product planning information, and other data and information pertinent to providing the most accurate, up-to-date, fuel economy information. Accurate up-to-date information is needed to advise the President, to respond to Congressional questions that are likely to arise in policy deliberations, and for any future CAFE analyses or rulemakings. Support will also be provided to the Department of Transportation Climate Change Center, which focuses on the relationship of transportation and environmental issues.

## Theft Prevention Program

Funding of \$50 thousand is included for the Theft Prevention program to carry out activities mandated by 49 CFR Chapter 331, including issuing parts-marking requirements for high-theft vehicle lines. The Theft Prevention program establishes standards aimed at reducing the number of motor vehicle thefts (including passenger cars, light trucks, and multi-purpose vehicles) and provides consumers with comprehensive insurance information. Funding also supports data analysis activities for insurer reports, as required by law.

## SAFETY ASSURANCE PROGRAMS

The FY 2002 budget requests \$15.064 million for Safety Assurance and includes the Vehicle Safety Compliance, the Defects Investigation, and the Odometer Fraud programs.

### Vehicle Safety Compliance Program

Funding of \$6.974 million for the Vehicle Safety Compliance program will continue full-scale dynamic crash testing of new motor vehicles and ensure that all new motor vehicles and motor vehicle equipment sold in the United States provide the safety benefits intended by federal safety regulations. This includes 20 crash tests for verification of compliance with the frontal occupant crash protection standards; 20 crash tests for verification of compliance with the dynamic side impact standard; 10 tests for verification of compliance with the dynamic upper interior head protection standard; and 20 crash tests for verification of compliance with the dynamic side and rear fuel system integrity standards. These tests will assess impact performance and occupant crash protection performance for a wide spectrum of vehicles, including all sizes of passenger cars, vans, pickup trucks, and sport utility vehicles. In addition, the agency will continue to test a majority of new child restraint systems and motorcycle helmets. The agency's compliance program will also continue its implementation plan for enforcing the new advanced air bag regulatory requirements by conducting demonstration tests, developing new test procedures, and preparing a new family of test dummies for compliance testing. Compliance testing for new or relatively new standards will continue to be an agency priority.

### Defects Investigation

Funding of \$7.94 million is requested for the Defects Investigation program, a critical component of the Department's commitment to transportation safety. The program will continue to analyze alleged motor vehicle defects that are reported to the agency and conduct rigorous investigations to determine whether these problems constitute safety-related defects that need to be remedied by the manufacturers. Funding will allow for the development, acquisition, and initial stages of implementation of a data warehouse that will include technological capabilities to satisfy the early warning requirements of the TREAD Act. Through the utilization of analytical intelligence to perform data and text mining, the new data warehouse will allow statisticians and analysts to forecast potential safety problems at an earlier stage, permitting the agency to open safety defect investigations in a timely manner.

#### Odometer Fraud

The funding request for the Odometer Fraud program is \$150 thousand. The program will continue to deter odometer fraud through aggressive enforcement of Federal odometer laws and regulations and assist states in their enforcement efforts. In FY 2002, the agency plans to enter into cooperative agreements with four states. Under this initiative, two states will send a state law enforcement officer to work directly with the NHTSA Odometer Fraud staff for training and hands-on experience. This program, which builds upon similar programs operated for the past four fiscal years, will provide in-depth training for state investigators. This initiative is expected to provide the agency with investigative assistance to conduct an increased amount of odometer fraud investigations for Federal prosecution and, in return, provide participating states with an experienced investigative staff member capable of conducting odometer fraud investigations within their individual state. Cooperative agreements with the remaining two states will provide assistance in either enhancing or initiating odometer fraud programs within the states.

### HIGHWAY SAFETY PROGRAMS

NHTSA requests \$41.633 million for Highway Safety Programs. Funding will continue to deliver an effective behavioral program to reduce traffic deaths and injuries and achieve the agency's goals in impaired driving and occupant protection.

#### Impaired Driving Program



The major objective of this program is to continue progress toward the national goal to reduce alcohol-related fatalities to 11,000 in 2005. This ambitious, but immensely critical, goal cannot be reached through a "business as usual" approach, but rather through innovative new approaches and technologies and through aggressive outreach with a diverse set of partners. The NHTSA FY 2002 program, at \$9.817 million, will continue to focus on a four-prong approach: prevention and education; enforcement and adjudication; legislation; and outreach through partnerships. In addition to the current impaired driving programs, NHTSA will expand state enforcement demonstrations to additional states with the most significant opportunity to reduce alcohol-related fatalities. The agency will continue a pilot test of the comprehensive youth enforcement strategy that will encompass detection of speeding offenses, zero tolerance violations, and seat belt violations. Training will continue for law enforcement, prosecutors, and judges on issues related to detecting and sentencing impaired drivers. NHTSA will develop resource trial manuals/bench books on prosecuting and adjudicating the high blood alcohol concentration (BAC) offender, including treatment and sanctioning alternatives.

#### Drugs, Driving and Youth

The major objective of the Drugs, Driving, and Youth Program is to reduce drug-impaired driving and drug use among youth. NHTSA continues to support the recommendations identified in the Initiative on Drugs, Driving and Youth, which addressed strengthening state laws; intensifying state and local enforcement programs; implementing youth-focused education efforts; and providing grants to states to initiate programs and laws focusing on impaired youth driving. In FY 2002, funding in the amount of \$1.196 million will focus on the following major areas: public information and education; outreach; training; and data collection. NHTSA will continue to provide training and technical assistance to law enforcement, prosecutors, and judges on impaired driving issues (alcohol and illicit drugs), particularly involving youth. A program will be maintained involving juvenile court judges in prevention activities at the community level, as well as the development of educational materials for diverse communities. NHTSA will increase outreach efforts to other parts of the criminal justice system, such as court administrators.

#### Pedestrian and Bicycle Safety

The budget requests \$1.295 million to support comprehensive pedestrian, bicycle, and school bus safety programs. The agency will conduct new initiatives to support selected strategies and recommendations from the *National Action Plan for Pedestrian Safety* and the *National Plan for Bicycle Safety*, developed in partnership with the Center for Disease Control's National Center for Injury Prevention and Control. The agency will continue ongoing efforts to develop best practice case studies to improve pedestrian safety in cities

and communities; a CD-ROM on pedestrian safety resources; bicycle safety training for law enforcement; and guidance on implementing Safe Routes to School initiatives. New programs will include demonstration grants for innovative strategies to involve law enforcement in pedestrian safety; public information for drivers on sharing the road with pedestrians and bicyclists; and follow-up to the National Youth Diversity Summit.

While school buses are among the safest forms of transportation, a number of issues continue to challenge the agency. NHTSA will continue its efforts to provide technical assistance on transporting pre-kindergarten children in school buses by developing a training module and video on securing child safety restraint systems in school buses. As the use of school buses is spreading to include child care organizations and Head Start programs, the agency will also undertake a revision of the school bus driver instructional program initially developed in 1974.

### Motorcycle Safety

The budget requests \$661,000 to support a comprehensive motorcycle safety program. NHTSA will conduct new initiatives that include implementation of selected recommendations in the *National Agenda for Motorcycle Safety*, including support of an implementation group consisting of a wide array of partners (motorcycling organizations, manufacturers, health and medical professionals, and engineers). The agency will implement recommendations from its internal motorcycle safety plan based upon an agency-wide detailed examination of its current motorcycle safety efforts. NHTSA will continue to support state efforts to enact motorcycle helmet laws; to respond to repeal efforts by distributing technical assistance materials upon request; and to support innovative strategies to prevent impaired motorcycle crashes and the resulting injuries and fatalities. Efforts will be made to work with national organizations to educate their members about motorcycle safety issues and provide workshops and exhibits at national meetings.

### Occupant Protection

The FY 2002 budget proposal of \$10.953 million focuses on three major areas: seat belts, child passenger safety (including booster seats), and air bags, while continuing efforts to reach the national goals of 90 percent seat belt use and reducing child passenger fatalities (0-4 years) by 25 percent by 2005. Strategies to reach the goals include expanded partnerships; public education; highly visible enforcement; passage of effective laws; and implementing new technologies. Activities include conducting semi-annual Operation America Buckles Up Children mobilizations; implementing Sections 157 and 405 incentive and innovative grant programs to the states; documenting best practices learned

from Section 403 demonstration programs and Sections 157 and 405 grant programs; and expanding partnerships with diverse organizations and other high risk and hard to reach populations. NHTSA will also target minority audiences with national media campaigns through the Advertising Council, minority media contractors, and the utilization of credible spokespersons. NHTSA plans a community demonstration initiative to increase the seat belt use among sport utility vehicle occupants due to the high rollover rate seen in these vehicles. To improve child passenger safety, the agency will expand and improve a web application designed to provide consumers with information on the selection, use, and installation of child restraints; conduct a Child Passenger Safety Week; develop initiatives to increase booster seat use for children between 40-80 pounds; and expand the network of public and private sector child safety fitting stations across the country.

In addition, air bag safety activities include educating used car buyers on air bag safety issues; expanding public information and education to promote awareness of existing air bag issues and emerging air bag technologies; and re-educating the public on dangers associated with the interaction between air bags and front seat occupants, including individuals of short stature, pregnant women, infants, and small children.

#### Traffic Law Enforcement

The Traffic Law Enforcement (TLE) request of \$2.192 million supports efforts to increase seat belt use and to reduce the number of traffic crashes, injuries, and fatalities due to impaired driving, speeding, aggressive driving and other unsafe driving acts. Increased demands on law enforcement for non-traffic activities have resulted in a decreased emphasis on traffic enforcement activities. The major objective of the TLE program is to diligently continue efforts with state, local, and federal partners, emphasizing the importance of integrating traffic enforcement into their overall enforcement programs to save lives and reduce the negative economic impact of traffic crashes. TLE outlines the framework for this program in the *Traffic Safety in the New Millennium: Law Enforcement Strategies* report, an implementation plan developed in partnership with law enforcement leaders nationwide, which considers demographic, economic, and technological trends.

#### Emergency Medical Services

The budget requests \$2.245 million for emergency medical services (EMS) to fulfill NHTSA's leadership and system development roles. The FY 2002 budget will continue support for system resources such as a national EMS data repository according to the strategic plan laid out in the EMS Agenda for the Future. Support will be directed at building a more efficient and effective system for educating new emergency medical

technicians and reinforcing the integrity of EMS systems through performance evaluation. The program will also continue to develop tools and incentives for mobilizing emergency medical professionals to conduct community injury prevention activities.

### Highway Safety Research

The request of \$7.277 million for highway safety behavioral research supports efforts to determine the causes of crashes; identify target populations; measure perceptions and awareness levels; develop and test countermeasures; and evaluate the effectiveness of programs to reduce traffic deaths, injuries, and associated monetary costs. This research program provides the scientific basis for NHTSA's national leadership in highway safety. It provides critical information necessary for an effective, integrated behavioral approach to reduce traffic injuries and to achieve the Department's goals to reduce impaired driving; increase occupant protection; reduce speeding and aggressive driving; and develop the necessary framework for dealing with driver distractions and the rapidly escalating number of elderly drivers.

Evaluation studies will determine changes in differential enforcement practices; evaluate the effectiveness of paid media and point sanctions for traffic violators; assess technology applications for traffic safety; evaluate high visibility enforcement efforts to increase seat belt use; and continue to evaluate the effectiveness and impact of standard seat belt enforcement laws.

### Traffic Records and Driver Licensing

The budget request includes \$2.591 million for the Traffic Records and Driver Licensing program to support the agency's increased emphasis on the availability and use of traffic records. Efforts include expanding the use of technology, conducting state traffic records assessments, providing technical assistance to support state data analysis and data linkage, training for traffic safety managers in the use of traffic records system data, and working with the states to improve records uniformity using the Model Minimum Uniform Crash Criteria (MMUCC). The agency will also continue to work with states and other traffic safety groups to develop and implement Graduated Driver Licensing (GDL) systems for young novice drivers and to determine the effectiveness of these systems. It will support development of a new standardized driver

education curriculum, driver risk assessment tools, and procedures to identify drivers with medical conditions that might impair driving ability.

### National Driver Register (NDR)

The National Driver Register assists state motor vehicle administrators in communicating with other states to identify problem drivers. All 50 states and the District of Columbia have converted to the Problem Driver Pointer System (PDPS). Regular operations consist of processing state and federal agency inquiries and state updates, plus related technical and administrative support. The NDR processed 35.8 million interactive inquiries in 2000, compared with 10.6 million interactive inquiries in 1994. This interactive capability allows driver licensing agencies to issue licenses over-the-counter and eliminates the need for applicants to return to the licensing agency. The FY 2002 request of \$2 million will continue the program's FY 2001 efforts. However, the Motor Carrier Safety Improvement Act (MCSIA) of 1999 now requires states to make NDR inquiries for all license issuances, not just adult original applicants. As a result, it is estimated that the number of inquiries will increase by 20 to 50 percent.

### RESEARCH AND ANALYSIS PROGRAMS

The FY 2002 Research and Analysis request, in the amount of \$57.338 million, includes support for biomechanics, crashworthiness, crash avoidance, driver/vehicle performance and heavy vehicle research. The funding requested will also support pneumatic tire research as required by the TREAD Act. In addition, funding supports the National Center for Statistics and Analysis (NCSA), which provides vital data on traffic crashes to the agency, the Department, state and local governments, and the private sector.

### National Transportation Biomechanics Research Center (NTBRC)

The budget request of \$13.954 million represents a continuation of the FY 2001 level, which supports the four major efforts pursued by the NTBRC. This level of funding will continue to allow initiation of new programs and accelerate existing efforts designed to better understand the biomechanics of impact injuries and implement this knowledge to the benefit of the entire driving population. Specifically, these funds will continue efforts to increase our knowledge and understanding of the nature of real crashes by sustaining the efforts of the Crash Injury Research and Engineering Network (CIREN). They will also maintain the current depth and breadth of ongoing experimental efforts designed to understand the biomechanics of impact injuries to body areas most susceptible to injury such as the head, spine, and chest. Furthermore, the agency will continue to develop advanced computer simulation capabilities that will provide safety system designers a greater ability to interpret dummy responses and to analytically evaluate the performance of proposed safety systems before actually building them. Development, introduction,

and use of advanced test dummies and devices for evaluating and regulating the safety performance of entire vehicles will also be vigorously pursued.

### Crashworthiness Research

The budget request of \$9.084 million for the crashworthiness research program will continue research in support of upgrading safety standards for frontal crash protection, side impact protection, roof crush protection, ejection prevention, fuel system integrity, and child safety. The activities include the development of test devices and test procedures suitable for compliance testing. The side impact research will include full vehicle and sled testing to support the short-term and long-term rulemaking activities; analysis of current and future U.S. crash environment; and testing of vehicles to assess the potential for harmonization and for generating new consumer information. The agency will continue to conduct research to address the issue of vehicle compatibility by analyzing the crash data and the fleet characteristics to define the safety problem; by developing suitable countermeasures to address the problems; and by testing and evaluating the effectiveness of countermeasures developed. Pedestrian injury reduction research will continue to develop child head protection procedures; establish baseline performance of the vehicle fleet; and establish potential injury reduction levels which might be attained through countermeasure development. All efforts mentioned above will continue to be coordinated through International Harmonized Research Activities (IHRA).

Research will be conducted on advanced restraint systems, such as adaptive air bags and inflatable belt systems, that have the potential for reducing occupant deaths and injuries in crashes. The performance of these systems could be greatly improved if deployed according to occupant sizes, crash severities and directions, status of safety belt use, and seating positions. Research will also be conducted in the sensing technologies that could be used to determine crash severities, directions, and other collision partner characteristics. This information could be used to tailor the inflation level required to fill the bag, as dictated at various periods during the crash, to more precisely meet the need to cushion the occupant.

### Crash Avoidance and Driver/Vehicle Performance

Funding of \$3.45 million is requested to support both Intelligent Transportation System (ITS) and human factors safety related programs. A primary emphasis of the program continues to be understanding driver workload and reducing driver distraction from in-vehicle devices. Some of this research will be conducted using the National Advanced Driving Simulator (NADS). The research will address the development and evaluation of

new Crash Avoidance technologies, as well as efforts related to driver behavior and performance. In particular, research will be directed toward safety issues associated with drug and alcohol impaired drivers; special driver populations (e.g., medically impaired, older drivers, youthful drivers); vehicle dynamics; and the safety of various telematics/infomatics systems and devices. Since the NADS will greatly enhance the ability to carry out safe and highly controlled and repeatable studies, it will be utilized to investigate a wide variety of other research issues in the future. Among these is the analysis of the complex driver-vehicle-environment interactions that are a contributing cause of more than three-quarters of all vehicle crashes. Furthermore, the development of standardized NADS test procedures and scenarios will ensure comparability of data collection across the range of studies planned and allow the development of a comprehensive driver data resource that can support the development of models to help predict driver behavior and performance under a variety of conditions. A new initiative to develop a test bed vehicle with integrated adaptive driver interface that will adjust the driver's workload from in-vehicle devices in accordance with the current demands of the driving task will start in FY 2002. Research will continue to develop a dynamic test procedure for measuring the propensity to roll over for light trucks and sport utility vehicles. Investigation of new concepts for improved rear lighting and signaling will also be a focus area.

### Heavy Vehicles

Funding of \$2.16 million is requested for NHTSA's efforts under the Department's initiative to reduce fatalities in heavy-vehicle-related crashes by 50 percent by the start of the year 2010. This goal is also encompassed in the multi-departmental 21st Century Truck Initiative. The major focus of NHTSA's heavy truck program will be improving braking performance of heavy trucks. Decreases in stopping distances from highway speeds of up to 30 percent are believed to be possible by using disc brakes, much more powerful front axle brakes, and electronic control of brakes. Development of pre-crash data recorders will help to better define the causes of heavy vehicle crashes. In addition, research on improved side and rearward visibility and the elimination of blind spots will continue, as will research into improved truck occupant protection countermeasures.

### Intelligent Vehicle Initiative (IVI)

The Intelligent Vehicle Initiative (IVI) is focused on improving safety through improved vehicle design. Design improvements will be accomplished by ensuring that the introduction of new in-vehicle systems does not degrade safety and facilitating the development, deployment, and evaluation of driver warning collision avoidance systems. In FY 2002, two pilot vehicles will be completed for a field operational test of a rear-end

collision warning system for light vehicles. In addition, a field operational test will begin for a road departure countermeasure for light vehicles. The Light Vehicle Enabling Research Consortium will continue work on enhanced digital maps for safety, advanced topics in forward collision warning, and the development of driver workload and distraction metrics. Work will continue on performance specifications and objective tests for intersection crash countermeasures and pedestrian crash countermeasures in light vehicles. In heavy vehicles, the test vehicles for the Drowsy Driver Field Operational Test will be completed, and the data collection phase of the test will begin. Funding requested in the amount of \$30.945 million is included in the Federal Highway Administration's (FHWA) budget.

#### National Advanced Driving Simulator (NADS)

The National Advanced Driving Simulator installation at the University of Iowa has been completed. Acceptance testing of the simulator revealed through-put problems with the Image Generator Computer system. These problems have now been corrected by the addition of more computer processing power. The Motion System hardware and software is completing its final adjustments and fine tuning. Following this, the simulator will commence operations in late spring of 2001. No funding is requested for the NADS development in FY 2002. However, funding has been requested under the Crash Avoidance and Driver/Vehicle Performance Program for NADS-based research, which includes support for both ITS and human factors safety-related programs.

#### National Center for Statistics and Analysis (NCSA)

The budget request for NCSA is \$22.32 million. Funding provides for collection and analyses of data on traffic crashes and their outcomes. These activities are vital to the traffic safety programs of NHTSA, FHWA, FMCSA, and other Departmental programs, state and local governments, as well as vehicle manufacturers, insurers, and highway safety public interest groups. NCSA operates an extensive system called the Fatality Analysis Reporting System (FARS) where data are collected on every highway traffic crash involving a fatality occurring in the U.S. These data are analyzed and disseminated for widespread use.

Additionally, in-depth information on traffic crashes is obtained through the National Automotive Sampling System's (NASS) Crashworthiness Data Collection System (CDS). A network of over 60 trained automotive crash investigators conduct approximately 4,500 detailed crash investigations in 24 locations throughout the country. This provides the nation with an indispensable data base representing serious crashes on a nationwide basis. Furthermore, NHTSA and DOT, by piggy-backing onto the NASS national



network, are able to quickly and cost-effectively mount special studies. Examples include the Large Truck Crash Causation Study being conducted for the Federal Motor Carrier Safety Administration and a massive tire-pressure study being conducted in support of TREAD.

The Special Crash Investigation (SCI) program, another NCSA program involving in-depth crash investigations, focuses on crashes of special interest to NHTSA and the public, such as air bag-related fatalities or serious injuries and crashes involving children. In FY 2002, SCI will investigate over 200 crashes, including over 100 involving advanced air bag systems. The latter will allow NHTSA to evaluate the effectiveness of these emerging systems in real-world crashes.

### Pneumatic Tire Research

The TREAD Act requires that the agency conduct rulemaking to revise and update the existing tire standards, FMVSS Nos. 109 and 119. TREAD also requires NHTSA to complete rulemaking to establish a regulation to require a pressure warning system in new motor vehicles to indicate when a tire is significantly underinflated. Accordingly, in FY 2001, NHTSA initiated a research program to support the rulemaking initiatives for upgrading the standard, conducting a tire pressure survey, and conducting research on several types of pressure warning systems. Research will also be initiated to study tire debanding and tire strength requirements. In

FY 2002, \$1.93 million is requested to continue research in these areas, as well as assess the need for other performance requirements and associated test procedures, such as adhesion performance of tires, accelerated aging of tires, and testing tires under aged conditions.

## HIGHWAY TRAFFIC SAFETY GRANTS

The Section 402 State and Community Formula Grant Program provides for a coordinated national highway safety program in every state, the District of Columbia, Puerto Rico, the Trust Territories, and the Indian Nations for the purpose of reducing highway crashes, deaths, and injuries. In FY 2002, all states and territories will be continuing the performance-based management process. Section 402 formula grants support programs, developed and managed by the states, to address their highway safety goals, performance measures, and strategic plans.

The FY 2002 Section 402 formula request will support national priority programs, such as encouraging proper use of occupant protection devices; reducing alcohol and drug-impaired driving; reducing motorcycle crashes; improving police traffic services;

improving emergency medical services and trauma care systems; increasing pedestrian and bicyclist safety; improving traffic record systems; and improving roadway safety. In addition, this funding will enable states to continue and expand the Safe Communities initiative, a community-based injury control approach to reducing traffic-related injuries. The agency believes the Safe Communities approach will reduce motor vehicle crash injuries and fatalities and reduce health care costs. As of March 2001, there were 1,080 local Safe Communities established in all 50 states nationwide. Last year, a record-breaking 300 new communities committed to implementing the Safe Communities approach, surpassing the Department's goal of 1,000 coalitions by the end of 2000.

Incentive grant programs provide states with extensive flexibility. States have the option to apply for these grants. If a state chooses to pursue a grant, the state may choose which legal and program criteria to implement. NHTSA's incentive grant programs are:

- Section 410 Alcohol-impaired Driving Incentive Grant Program rewards states that enact stronger laws and start effective programs to stop drunk drivers and states that demonstrate consistently high performance in reducing alcohol-related fatality rates.
- Section 405 Occupant Protection Incentive Grant Program rewards states that implement strong laws and programs to increase safety belt and child safety seat use.
- Section 411 State Highway Safety Data Improvements Incentive Grant Program provides grants to states to implement effective programs to improve state data that is needed to identify priorities for national, state, and local highway safety programs.

Formula funds are spread over a wide range of highway safety issues, according to goals and priorities set by the states, and much of the funding is focused on community-level programs. Incentive funds target national priority initiatives that can make the biggest impact on the safety bottom line. Incentive funds are used as a "carrot" to encourage states to implement tough laws and programs statewide; when the states take the hard steps, the reward is extra funding to help support their efforts.

## CONCLUSION

Mr. Chairman, safe travel on our nation's highways is a crucial and ongoing need. We will continue to strive to improve our record in highway safety. I look forward to working with you on our fiscal year 2002 program, and I thank you for your support.

This concludes my statement. I would be pleased to answer any questions.

